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09/736,366	12/15/2000	Seong Woo Lee	HI-026	8929

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EXAMINER	
JUNTIMA, NITTAYA	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/736,366	Applicant(s) LEE, SEONG WOO	
	Examiner Nittaya Juntima	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 December 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following:

- in Fig. 1, "No" and "Yes" should be properly added to step S38; and

- in Fig. 3, "No" and "Yes" should be properly added to step S56,

and "ACCP" in step S60 should be changed to "SCCP."

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

- on pg. 4, line 3, "int he" should be changed to "in the;" and

line 18, "by" should be changed to "from," see pg 12, l 10-14 and pg. 14, lines 13-20.

Appropriate correction is required.

Claim Objections

3. Claims 1, 4-5, and 7-12 are objected to because of the following informalities:

- in claim 1, line 6, "by" should be changed to "from" in order to be consistent with the specification, pg. 14, lines 13-20; and

line 8, "the SCCP" should be changed to "a SCCP" since a SCCP of the second network is not the same as that of the first network.

- in claim 4, line 3, "the" should be changed to "a;"

  line 8, "the" should be changed to "a;"

- in claim 5, line 3, "the SCCP" should be changed to "a SCCP;"

- in claim 7, line 2, "the" should be deleted;

- in claim 8, line 2, "on" should be changed to "of;"

- in claim 9, line 2, "a" should be changed to "the;"

  line 3, "the" should be changed to "an;"

- in claim 10, line 2, "messages" should be changed to "the message;"

  line 4, "the terminating" should be changed to "a terminating;"

  line 8, "the resolved" should be changed to "a resolved;"

- in claim 11, line 8, "and" should be added after a semicolon; and

- in claim 12, line 6, "and" should be added after a semicolon.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the limitation "an adjacent signaling network" in line 6 of the claim is vague and indefinite. It cannot be determined from the claim language as whether an adjacent signaling network is the same as the first signaling network. Therefore, the claim is vague and indefinite. The office is treating this limitation as "the first signaling network."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. **Claims 1-3** and **9-15** are rejected under 35 U.S.C. 102(e) as being anticipated by Lindquist et al. (USPN 5,852,660).

Per **claim 1**, as shown in Fig. 6, Lindquist et al. teach

defining ***translation type information*** (TT value of ANSI, e.g. TT = 3, is defined as

shown in Table 1) of ***a first signaling network*** (ANSI SS7 network 380) in ***a translation type mapping table*** (table 372) (col. 7, ll 4-23),

mapping ***a translation type*** (TT of ANSI SS7 network 380, e.g. TT = 3) contained in ***a SCCP message of the first signaling network*** (a SCCP message containing a Cdpa and Cgpa from module 340A to module 340B) received from ***the first signaling network*** (ANSI SS7 network 380) into ***a translation type*** (TT of CCITT SS7 network 390, TT = 0) of ***a second network*** (CCITT SS7 network 390) by searching ***the translation type mapping table*** (table 372) (col. 6, ll 41-47, and col. 7, ll 35-67), and

mapping ***a translation type*** (TT of CCITT SS7 network 390, e.g. TT=0) of ***the second signaling network*** (CCITT SS7 network 390) contained in ***a SCCP message to be transmitted to the adjacent signaling network*** (a return SCCP message containing Cdpa and Cgpa from module 340B to module 340A) into ***the translation type of the first signaling network*** (TT of ANSI SS7 network 380, TT = 3) by searching ***the translation type mapping table*** (table 372) (it is inherent that the TT of CCITT format must be converted into the TT of ANSI format in order for the STP 385 and network 380 to properly route the signal back to the module 340A, col. 6, ll 51-54, col. 9, ll 38-col. 10, ll 1-3 and col. 13, ll 1-col. 14, ll 1-2).

Per **claim 2**, Lindquist et al. teach that ***the translation type mapping table*** (table 372) comprises ***a receiving translation type table*** (table 1) configured to resolve ***the translation type of the second signaling network*** (TT of the CCITT SS7 network 390, e.g. TT = 0) with ***the translation type of the first signaling network*** (TT of the ANSI SS7 network 380, e.g. TT = 3) contained in ***the SCCP message*** (the SCCP message from module 340A to 340B containing Cdpa and Cgpa). See Fig.6, col. 7, ll 4-8, 24-26, 35-67 and Tables 1-2.

Per **claim 3**, Lindquist et al. teach that ***the translation type mapping table*** (table 372) comprises ***a transmitting translation type table*** (Table 1) configured to resolve ***a translation type of a terminating signaling network*** (TT of the called party signaling network - ANSI SS7 network 380, e.g. Cgpa: TT = 0) with ***the translation type of the second signaling network*** (TT of the CCITT SS7 network 390, e.g. Cgpa: TT = 3) contained in ***the SCCP message*** (the SCCP message from module 340B to 340A containing Cgpa and Cdpa). See col. 6, ll 51-54, col. 9, ll 38-col. 10, ll 1-3 and col. 13, ll 1-col. 14, ll 1-2.

Per **claim 9**, as shown in Fig. 6, Lindquist et al teach searching ***an originating signaling network*** (calling party signaling network, i.e. ANSI SS7 network 380) transmitting ***the SCCP message*** (the SCCP message from module 340A to 340B containing Cgpa and Cdpa) if the SCCP message is received from ***a signal link*** (a connection between ANSI SS7 netowrk 380 and STP gateway 385) interworked with ***the first signaling network*** (ANSI SS7 network 380), and searching ***the translation type contained in the SCCP message of the first signaling network*** (TT of ANSI SS7 network 380, e.g. Cdpa: TT = 3) if the originating signaling network is the first signaling network (the calling party network and the TT value must be searched by the STP 385 in order for the converter 370 to determine whether the received SCCP parameters are of ANSI SS7 network 380 and to perform the SCCP parameters conversion from ANSI to CCITT accordingly, col. 7, ll 4-46), determining whether ***the translation type of the second signaling network*** (TT of CCITT SS7 network 390, e.g. TT = 0) corresponding to ***the translation to the translation type of the first signaling network*** (TT of ANSI SS7 network 380, e.g. TT = 3) exists by searching ***the receiving translation type mapping table*** (table 1) with ***a resolved translation type of the first signaling network*** (TT of ANSI SS7 network 380, e.g. Cdpa: TT =

3) (it is inherent that the converter 370 must use Cdpa: TT=3 received from ANSI network 380 to search for a corresponding TT of CCITT format, e.g. TT = 3, which must exist in table 1 in order for the converter module 370 to perform SCCP parameters conversion from ANSI to CCITT, col. 7, ll 4-67), and mapping ***the translation type of the first signaling network*** (TT of ANSI SS7 network 380, e.g. TT = 3) contained in ***the SCCP message*** (the SCCP message from module 340A to 340B containing Cgpa and Cdpa) into ***the translation type of the second signaling network*** (TT of CCITT SS7 network 390, e.g. TT = 0), if the translation type of the second signaling network corresponding to the translation type of the first signaling network exists (TT = 3 for ANSI is mapped into TT=0 of CCITT for Cdpa parameter, col. 7, ll 4-67).

Per **claim 10**, Lindquist et al. teach searching ***the translation type of the second signaling network*** (TT of CCITT SS7 network 390, e.g. TT = 0) contained in ***the SCCP message to be transmitted*** (the SCCP message from module 340B to module 340A containing Cgpa and Cdpa) if ***a terminating signaling network*** (the signaling network of the called party, i.e. ANSI SS7 network 380) is ***the first signaling network*** (ANSI SS7 network 380) (it is inherent that the called party network and the TT value must be searched by the STP 385 in order for the converter 370 to determine whether the SCCP parameters of the calling party network are of CCITT network 390 and to perform the SCCP parameters conversion accordingly, col. 9, ll 39-col. 10, ll 1-3), determining whether ***the translation type of the first signaling network*** (TT of ANSI SS7 network 380, e.g. TT = 3) corresponding to ***the translation type of the second signaling network*** (TT of CCITT SS7 network 390, e.g. TT = 0) exists by searching ***the transmitting translation type mapping table*** (table 1) with ***a resolved translation type of the second signaling network*** (TT of CCITT SS7 network 390, TT = 0) (it is inherent that the

converter 370 must use the Cgpa: TT = 0 received from CCITT network 390 to search for a corresponding TT of ANSI format, e.g. TT = 3, which must exist in table 1 in order for the converter module 370 to perform SCCP parameter conversion from CCITT to ANSI, col. 9, ll 39-col. 10, ll 1-3, and col. 13, ll 1-col. 14, ll 1-2), and mapping ***the translation type of the second signaling network*** (TT of CCITT SS7 network 390, TT = 0) contained in ***the SCCP message to be transmitted*** (the SCCP message from module 340B to module 340A containing Cgpa and Cdpa) into ***the translation type used by the terminating network*** (TT = 3 for ANSI SS7 network 380), if the translation type of the first signaling network corresponding to the translation type of the second signaling network exists (Cgpa: TT = 0 of CCITT network 390 must be mapped into Cgpa: TT = 3 of ANSI SS7 network 390 in order for the return signal to be routed to the module 340A, col. 7, tables 1-2, and col. 9, ll 39-col. 10, ll 1-3, and col. 13, ll 1-col. 14, ll 1-2).

Per **claim 11**, as illustrated in Fig. 6, Lindquist et al. teach generating ***a first SCCP signal*** having ***a first translation type*** (Cdpa: TT = 3) (a signal having SCCP Cgpa and Cdpa parameters is generated from ANSI SS7 network 380, col. 7, ll 35-42), transmitting the first SCCP signal from ***a first network*** (ANSI SS7 network 380) (the signal containing Cdpa and Cgpa is transmitted to converter 370, col. 7, ll 42-46), searching ***a translation type mapping table*** (table 372) for a definition corresponding to the first translation type (TT of CCITT corresponding to TT of ANSI is searched, col. 7, ll 42-46 and 63-67), receiving ***the first SCCP signal*** (a signal having SCCP Cgpa and Cdpa parameters) by ***a second network having a second translation type*** (a second network reads on STP 385 having a TT value in CCITT format stored in table 1, col. 7, ll 4-23 and 42-46), mapping the first translation type to the second translation type

according to the definition from the translation type mapping table (Cdpa: TT=3 of ANSI is mapped into Cdpa: TT = 0 of CCITT according to table 1, col. 7, ll 4-67).

Per **claim 12**, as shown in Fig. 6, Lindquist et al. teach identifying ***a first translation type of a first network*** (Cdpa: TT = 3 of ANSI SS7 network 380) based on ***a SCCP message*** (a SCCP message from module 340A to module 340B) (col. 7, ll 35-42), searching ***a look-up table*** (table 372) for ***a second translation type of a second network*** (Cdpa: TT = 0 of CCITT SS7 network 390) corresponding to ***the first translation type*** (Cdpa: TT=3 of ANSI SS7 network 380) (col. 7, ll 35-67), mapping ***the first translation type*** (TT of ANSI SS7 network 370) to ***the second translation type*** (TT of CCITT SS7 network 390) in accordance with a definition of the look-up table (col. 7, ll 4-67).

Per **claim 13**, ***the look-up table*** (table 372) comprises ***a receiving translation type mapping table*** (table 1) and ***a transmitting translation type mapping table*** (table 1). See col. 7, ll 4-23.

Per **claim 14**, Lindquist et al. teach that ***the transmitting translation type table*** (Table 1) is configured to resolve ***a translation type of a terminating signaling network*** (TT in a format of the signaling network of the called party, i.e. CCITT network 390) with ***the translation type of the terminating signaling network to receive the SCCP message*** (Cdpa: TT = 0 of CCITT SS7 network 390) (converter module 370 references tables 1 and 2 in order to find a Cdpa parameter with TT of CCITT format, e.g TT= 0, that corresponds to the TT of ANSI format, e.g. TT = 3, received from network 380 so that SCCP parameters would be converted into CCITT format and recognized by the called party in CCITT SS7 network 390, Fig. 6, col. 7, ll 4-67).

Per **claim 15**, Lindquist et al. teach that ***the receiving translation type table*** (Table 1) is configured to resolve ***the translation type of the second signaling network*** (TT of the CCITT SS7 network 390) with ***the translation type of the first signaling network*** (Cdpa: TT = 3 of the ANSI SS7 network 380) contained in ***the SCCP message*** (the SCCP message from module 340A to 340B containing Cdpa and Cgpa). See Fig.6, col. 7, ll 4-67.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 4-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindquist et al. (USPN 5,852,660).

Per **claim 4**, Lindquist et al. teach storing ***the translation type mapping information*** (TT values in CCITT SS7 and ANSI SS7 formats) in ***the translation type mapping table*** (table 372, col. 7, ll 4-23), and transferring ***the translation type mapping information*** (TT values in CCITT SS7 and ANSI SS7 formats) to ***a processor*** (converter module 370) to perform a translation type mapping function (it is inherent that TT values must be transferred from table 372 comprising table 1 to the converter module 370 to enable the converter module to perform the SCCP parameters conversion and reformatting on the received signal, col. 6, ll 64-col. 7, ll 1-34, 40-46, 61-67).

Lindquist et al. further teach receiving ***translation type mapping information*** (TT values for CCITT and ANSI formats must be received for them to be stored in table 1, col. 7, ll 4-23); however, Lindquist et al. fail to teach receiving translation type mapping information according to a request to define a translation type mapping for the first signaling network.

It would have been obvious to one skilled in the art to include a request to define a translation type mapping for the first signaling network into the teaching of Lindquist et al. such that the translation type mapping information would be received according to the request to define a translation type mapping for the first signaling information. The motivation/suggestion to do so would have been to enable one to receive and store the important translation type mapping information, i.e. TT values for CCITT and ANSI SS7 formats, in the translation type mapping table (table 372) for application layer signaling conversion and SCCP parameters conversion which are the objectives of the teaching of Lindquist et al. (col. 2, ll 57-67 and col. 6, ll 64-col. 7, ll 1-8).

Per **claim** 5, as shown in Fig. 6, Lindquist et al. teach that ***the translation type*** (TT in Table 1) used by ***the first signaling network*** (ANSI SS7 network 380) is defined in a SCCP signaling network, and ***the first signaling network*** (ANSI SS7 network 380) is defined in the signaling network of ***a gateway*** (a gateway STP 385 containing Table 1). See Fig. 4 and col. 6, ll 41-col. 7, ll 1-34.

Lindquist et al. further teach ***the second signaling network*** (CCITT SS7 network 390) and ***a gateway signaling network*** (a gateway STP 385) separately, but fail to teach that the second signaling network is defined as a gateway signaling network.

However, it would have been obvious to one skilled in the art to modify the teaching of

Lindquist et al. such that the second signaling network is defined as a gateway signaling network because such modification, e.g. integration of parts, involves only routine skill in the art.

Per **claims 6-8**, Lindquist et al. teach that ***the translation type mapping information*** (TT values for CCITT and ANSI SS7 formats in table 1) comprises ***the second signaling network translation type information*** (TT values of CCITT SS7 network 390, TT =0 for CCITT 1 and CCITT 2), ***information related to the first signaling network as a mapping object*** (TT value of ANSI SS7 network 380, TT = 3 for ANSI 1), and the translation type information of the first signaling network as a mapping object (TT value of ANSI SS7 network 380, TT = 3 for ANSI). See col. 7, ll 4-34.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 703-306-4821. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
May 17, 2004

ANDY LEE
PATENT EXAMINER